

Lesson Description - Installing Python 3 on CentOS 7

Learn how to install Python 3 from source on a CentOS 7 machine.

Download and Install Python 3 from Source

Here are the commands that we'll run to build and install Python 3:

```
$ sudo su -
[root] $ yum groupinstall -y "development tools"
[root] $ yum install -y \
  libffi-devel \
  zlib-devel \
  bzip2-devel \
  openssl-devel \
  ncurses-devel \
  sqlite-devel \
  readline-devel \
  tk-devel \
  gdbm-devel \
  db4-devel \
  libpcap-devel \
  xz-devel \
  expat-devel

[root ] $ cd /usr/src
[root ] $ wget http://python.org/ftp/python/3.6.4/Python-3.6.4.tar.xz
[root ] $ tar xf Python-3.6.4.tar.xz
[root ] $ cd Python-3.6.4
[root ] $ ./configure --enable-optimizations
[root ] $ make altinstall
[root ] $ exit
```

Important: `make altinstall` causes it to not replace the built in `python` executable.

Ensure that `secure_path` in `/etc/sudoers` file includes `/usr/local/bin`. The line should look something like this:

```
Defaults    secure_path = /sbin:/bin:/usr/sbin:/usr/bin:/usr/local/  
bin
```

Upgrade Pip (Might not be Necessary)

The version of `pip` that we have might be up-to-date, but it's good practice to try to update it after the installation. We need to use the `pip3.6` executable because we're working with Python 3, and we use `sudo` so that we can write files under the `/usr/local` directory.

```
$ sudo pip3.6 install --upgrade pip
```